

AMENDMENTS TO THE CLAIMS

Please find below a complete listing of the claims in the application, including their status as effected by the present amendment:

1. (*currently amended*) A device for ~~use in a wireless communication system~~ integration into a base station of a type that includes at least one radio-transceiver for receiving and transmitting radio communications to a plurality of subscriber stations; the device use in a wireless communication system comprising:

an input device operable to be coupled to the at least one radio-transceiver for receiving a handoff ~~[[trigger]]~~ signal from the at least one radio-transceiver at a first mode respective to a first coverage area of the communication system; an output device for delivering the handoff signal at a second mode respective to a second coverage area; a converter coupled to said input device and said output device for translating the handoff ~~[[trigger]]~~ signal from the first mode into the second mode; the second mode handoff signal for indicating to a subscriber station operating in the second mode within both of the coverage areas to switch from the second mode to the first mode so that the subscriber station operates in the first coverage area.

2. (*original*) The device according to claim 1 wherein said first coverage area and said second coverage area of said system are based on a protocol selected from the group consisting of CDMA, TDMA, GSM, GPRS, AMPS and FDMA.

3. (*currently amended*) The device according to claim ~~[[3]]~~-2 wherein said protocols respective to said coverage areas are different.

4. (*currently amended*) The device according to claim 1 wherein said handoff ~~[[trigger]]~~ signal is a conventional CDMA re-direction signal, and wherein said first mode is a first frequency and said second mode is a second frequency different from said first frequency.

5. (*original*) The device according to claim 4 wherein said first coverage area and said second coverage area are served by respective CDMA base stations.

6. (*currently amended*) The device according to claim ~~5~~ 1 wherein said output device is operable to transmit said handoff signal to a base station power combiner for delivering said converted handoff signal to a base station antenna for outputting said handoff signal.

7. (*currently amended*) The device according to claim 4 wherein said converter comprises a down-converter operable to receive said handoff ~~[[trigger]]~~ signal from said input device and for converting said handoff trigger from said first frequency to an intermediate frequency and an up-converter for converting said intermediate frequency to said second frequency.

8. (*original*) The device according to claim 7 further comprising a microcontroller operably connected to said down-converter and said up-converter such that said first frequency and said second frequency is user-selectable.

9. (*currently amended*) The device according to claim ~~[[9]]-8~~ 8 wherein said microcontroller is further operable to perform at least one of logging various conversions performed by said converter, and generating alarms ~~if said converter operates outside of desired specifications~~ upon occurrence of a pre-determined event.

10. *(currently amended)* A method for generating a handoff signal at a base station of a type that includes at least one radio-transceiver for receiving and transmitting radio communications to a plurality of subscriber stations, of generating a handoff trigger signal the method comprising the steps of:

receiving a ~~[[trigger]]~~ handoff signal from the at least one radio-transceiver at a first mode respective to a first coverage area;

converting said ~~[[trigger]]~~ handoff signal from said first mode to a second mode respective to a second coverage area; and,

outputting said ~~[[trigger]]~~ handoff signal into said second coverage area.

11. *(original)* The method according to claim 10 wherein said first coverage area and said second coverage area are based on a protocol selected from the group consisting of CDMA, TDMA, GSM, GPRS, AMPS and FDMA.

12. *(original)* The method according to claim 11 wherein said protocols respective to said coverage areas are different.

13. *(currently amended)* The method according to claim 10 wherein said handoff ~~[[trigger]]~~ signal is a conventional CDMA re-direction signal, and wherein said first mode is a first frequency and said second mode is a second frequency different from said first frequency.

14. *(original)* The method according to claim 13 wherein said first coverage area and said second coverage area are served by respective CDMA base stations.

15. (*currently amended*) The method according to claim ~~[[14]]~~ 10 wherein ~~said device is integral with one of said base stations~~ outputting of said handoff signal comprises transmitting said handoff signal to a base station power combiner for delivering said converted handoff signal to a base station antenna for outputting said handoff signal into said second coverage area.

16. (*currently amended*) The method according to claim 13 further comprising ~~[[the step of]]~~ receiving an input signal identifying at least one said frequencies for use in performing the remainder of the steps.

17. (*currently amended*) A system for performing handoff comprising:

a first base station operating at a first mode and comprising at least one radio-transceiver for receiving and transmitting radio communications to a plurality of subscriber stations; said at least one radio-transceiver operable to generate a handoff ~~[[trigger]]~~ signal at said first mode;

a second base station operating a second mode;

a handoff device including an input device for receiving said handoff ~~[[trigger]]~~ signal from said at least one radio-transceiver at said first mode; an output device for delivering said handoff signal at said second mode in a coverage area respective to said second base station; a converter coupled to said input device and said output device for translating the handoff ~~[[trigger]]~~ signal from the first mode into the second mode; the second mode handoff signal for indicating to a subscriber station operating in the second mode within both of the coverage areas to switch from the second mode to the first mode.

18. *(original)* The system according to claim 17 wherein said first base station and said second base station of said system are based on a protocol selected from the group consisting of CDMA, TDMA, GSM, GPRS, AMPS and FDMA.

19. *(original)* The system according to claim 18 wherein said protocols respective to said coverage areas are different.

20. *(currently amended)* The system according to claim 17 wherein said handoff ~~[[trigger]]~~ signal is a conventional CDMA re-direction signal, and wherein said first mode is a first frequency and said second mode is a second frequency different from said first frequency.

21. *(currently amended)* The system according to claim 17 wherein ~~said handoff device is integral with said first base station~~ said first base station further comprises a base station power combiner and a base station antenna coupled to said base station power combiner for transmitting radio communications to a plurality of subscriber stations; said output device further operable to transmit said handoff signal to said base station power combiner.

22. *(currently amended)* The system according to claim 20 wherein said converter comprises a down-converter operable to receive said handoff ~~[[trigger]]~~ signal from said input device and for converting said handoff trigger from said first frequency to an intermediate frequency and an up-converter for converting said intermediate frequency to said second frequency.

23. *(original)* The system according to claim 22 further comprising a microcontroller operably connected to said down-converter and said up-converter such that said first frequency and said second frequency is user-selectable.

24. *(original)* The system according to claim 23 wherein said microcontroller is further operable

to perform at least one of logging various conversions performed by said converter, and generating alarms if said converter operates outside of desired specifications.

25. *(cancelled)*

26. *(cancelled)*

27. *(currently amended)* A device for use in a wireless communication system comprising:

an input device coupled to a base-station radio-transceiver for receiving a handoff ~~[[trigger]]~~ signal from said base-station radio-transceiver at a first mode respective to a first coverage area of the communication system; an output device for delivering the handoff signal at at least one additional mode respective to at least one additional coverage area; a converter for translating the handoff ~~[[trigger]]~~ signal from the first mode into the additional mode; the additional mode handoff signal for indicating to a subscriber station operating in the additional mode within the coverage areas to switch from the additional mode to the first mode so that the subscriber station operates in the first coverage area.

28. *(currently amended)* A method for ~~[[performing handoff]]~~ generating a CDMA handoff signal at a base station of a type that includes at least one radio-transceiver for receiving and transmitting radio communications to a plurality of subscriber stations; the method comprising ~~[[the steps of]]~~:

receiving a CDMA handoff from a base-station radio-transceiver signal at a first frequency;

converting said ~~[[received]]~~ CDMA handoff signal from said first frequency to an intermediate frequency;

converting said CDMA handoff signal at said intermediate frequency ~~[[trigger signal]]~~ to a second frequency; and,

outputting said CDMA handoff signal at said second frequency.

29. *(currently amended)* A device integrated into a base station of a type that includes at least one radio-transceiver for receiving and transmitting radio communications to a plurality of subscriber stations; the device for performing handoff comprising:

means for receiving a CDMA handoff signal from a base-station radio-transceiver at a first frequency;

means for converting said received CDMA handoff signal from said first frequency to an intermediate frequency;

means for converting said CDMA handoff signal at said intermediate frequency ~~[[trigger signal]]~~ to a second frequency; and,

means for outputting said CDMA handoff signal at said second frequency.

30. *(currently amended)* A base station for use in a wireless communication system comprising a radio-transceiver for receiving and transmitting radio communications to a plurality of subscriber stations, data-processing equipment for carrying at least a portion of said communications over a backhaul, said base station further including a device for performing handoff comprising an input device for receiving a handoff ~~[[trigger]]~~ from said radio-transceiver signal at a first mode respective to a first coverage area of the communication system; an output device for delivering

the handoff signal at a second mode respective to a second coverage area; a converter coupled to said input device and said output device for translating the handoff ~~[[trigger]]~~ signal from the first mode into the second mode; the second mode handoff signal for indicating to a subscriber station operating in the second mode within both of the coverage areas to switch from the second mode to the first mode so that the subscriber station operates in the first coverage area.

31. *(original)* The base station according to claim 30 wherein said base station is based on the CDMA protocol.

32. *(original)* The base station according to claim 30 wherein the radio- transceiver is operable to receive and transmit radio communications to the plurality of subscriber stations in the first mode.

33. *(cancelled)*

34. *(currently amended)* A handoff device for use in a wireless CDMA communication system and operable to be coupled to a radio-transceiver of a base station, the handoff device comprising an input device for receiving a CDMA re-direction signal from the radio-transceiver at a first frequency respective to a first coverage area of said communication system; a first converter connected to said input device for converting said CDMA re-direction signal from said first frequency to an intermediate frequency; a second converter connected to said first converter for converting said CDMA re-direction signal from said intermediate frequency to a second frequency; an output device connected to said second converter for delivering said CDMA re-direction signal at said second frequency within a second coverage area; said CDMA re-directional signal for indicating to a subscriber station operating in said second frequency and within both of said coverage areas to switch from said second frequency to said first frequency

so that said subscriber station operates in said first coverage area.

35. *(new)* A base station that incorporates the device according to claim 1.

36. *(new)* The base station according to claim 35 wherein the base station further comprises a base station power combiner and a base station antenna coupled to said base station power combiner for transmitting radio communications to a plurality of subscriber stations; said output device further operable to transmit said handoff signal to said base station power combiner.

37. *(new)* The base station according to claim 35 wherein said first coverage area and said second coverage area of said system are based on a protocol selected from the group consisting of CDMA, TDMA, GSM, GPRS, AMPS and FDMA.

38. *(new)* The base station according to claim 37 wherein said protocols respective to said coverage areas are different.

39. *(new)* The base station according to claim 35 wherein said handoff signal is a conventional CDMA re-direction signal, and wherein said first mode is a first frequency and said second mode is a second frequency different from said first frequency.

40. *(new)* The base station according to claim 39 wherein said base station is a CDMA base station and said second coverage area is served by a CDMA base station different from said CDMA base station.